

Topic 11

# Risk and Regulation

AFIN8014  
FinTech and Innovation



# Learning Objectives

## An Overview

An overview of regulations in financial markets

## Tradeoff

Analyze the balance between regulation and innovation and its tradeoffs

## FinTech Regulations

Evaluate regulatory Issues of FinTech

## RegTech

Explore RegTech: the definition and its relations with FinTech



## Regulations in Financial Market

Globally, legal frameworks are unique for each jurisdiction

Regulations Based on Areas of Financial Industry

Stock  
exchanges

Listed  
company

Investment  
management

Banks and  
financial  
service  
providers

## Regulations in Financial Market

Financial markets is highly regulated

There are numerous of legislations, rules, and standards that control, monitor, and protect consumers, merchants, banks, and the banking system.

What drives the changes of regulation?

INCREASING COMPETING



CUSTOMER PROTECTION



CRIME PREVENTATION

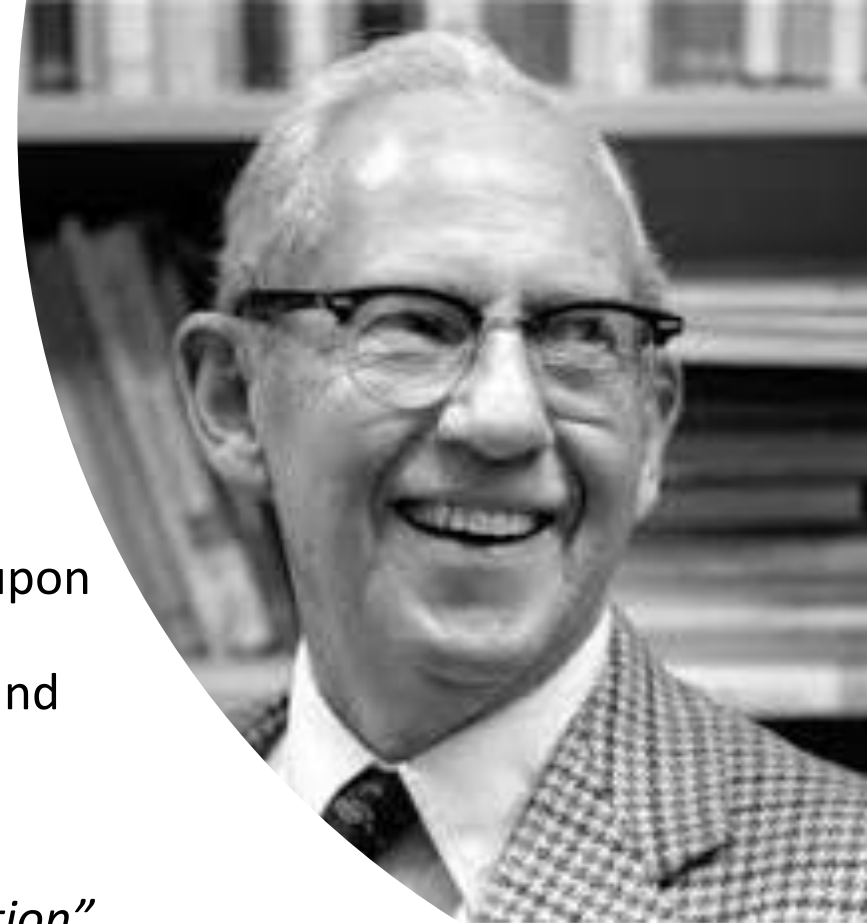


# Regulation in Financial Market

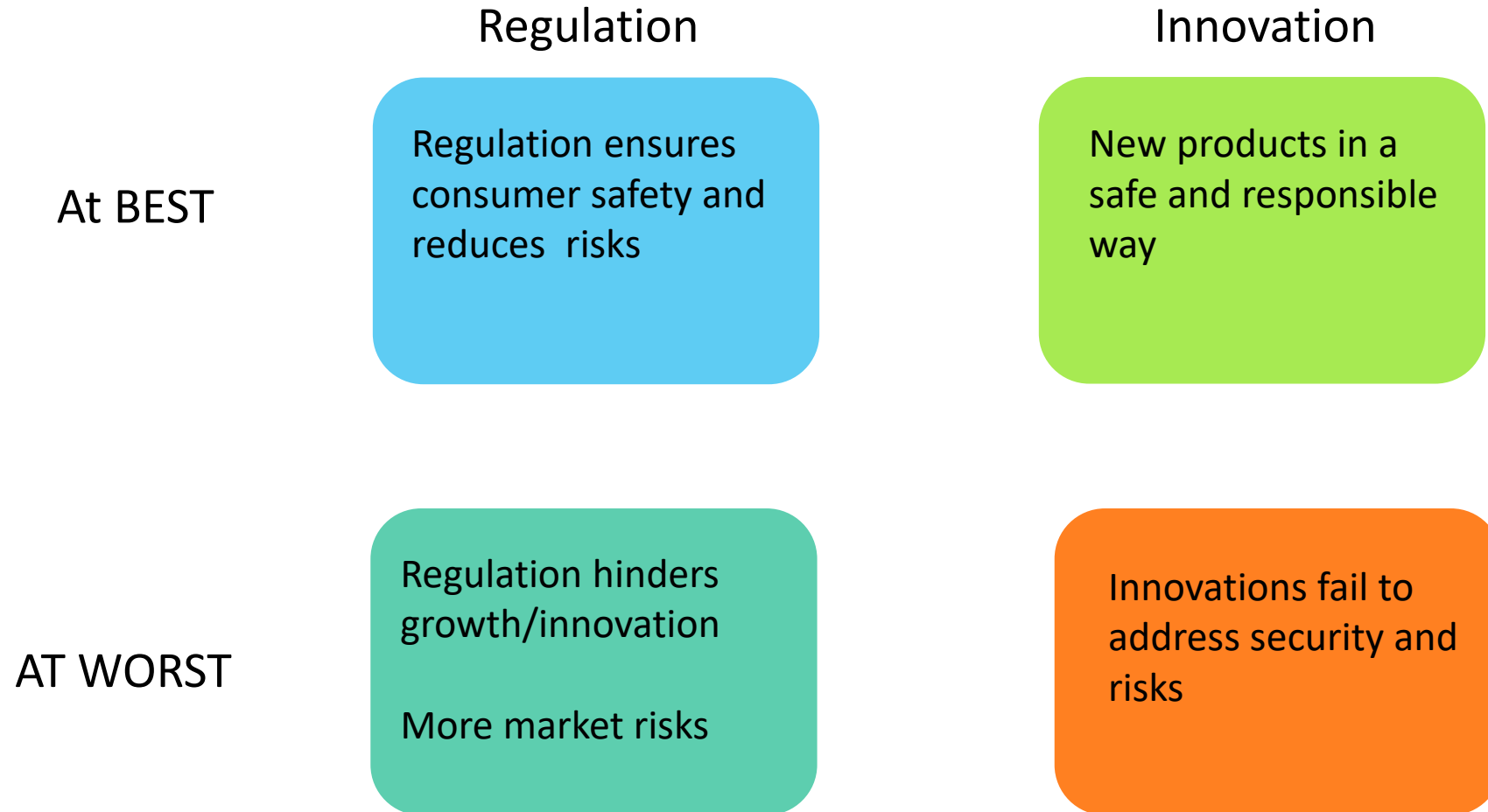
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“Regulation may be actively sought by an industry, or it may be thrust upon it...as a rule, regulation is acquired by the industry and is designed and operated primarily for its benefit. At worst, regulation hinders growth and innovation through bureaucracy.”

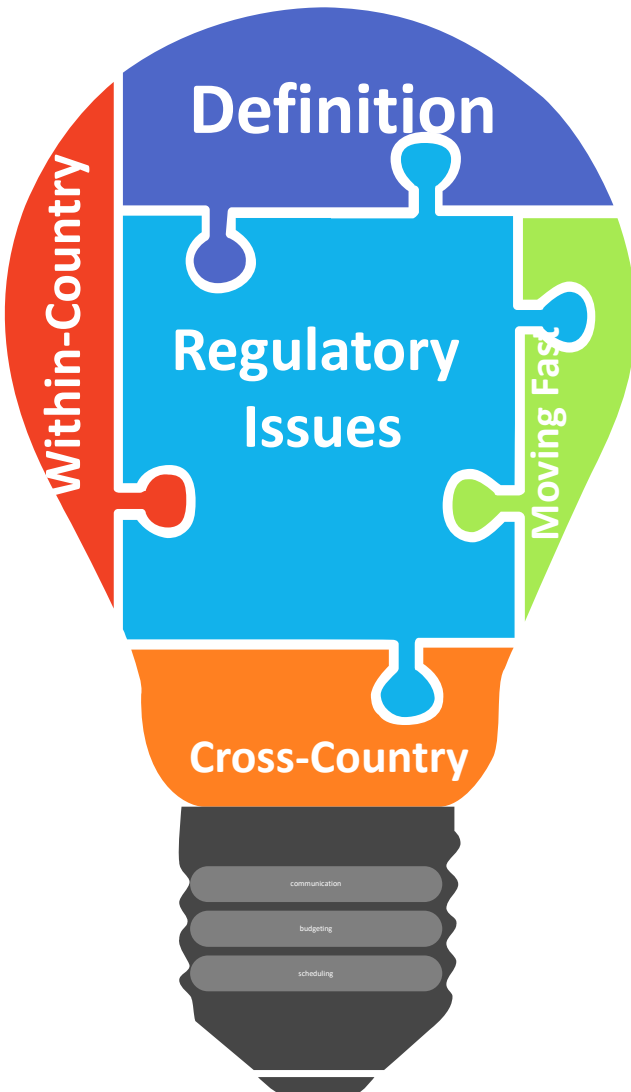
*by George Stigler, Economist, “The Theory of Economic Regulation”*



# Regulation-Innovation Tradeoff



# Regulatory Issues of FinTech



## Definition



FinTech is hard to define.

## Moving Fast



Technologies are fast-moving.

## Cross-Country Regulation



The cross-country regulatory jurisdiction is unclear.

## Within-Country Regulation

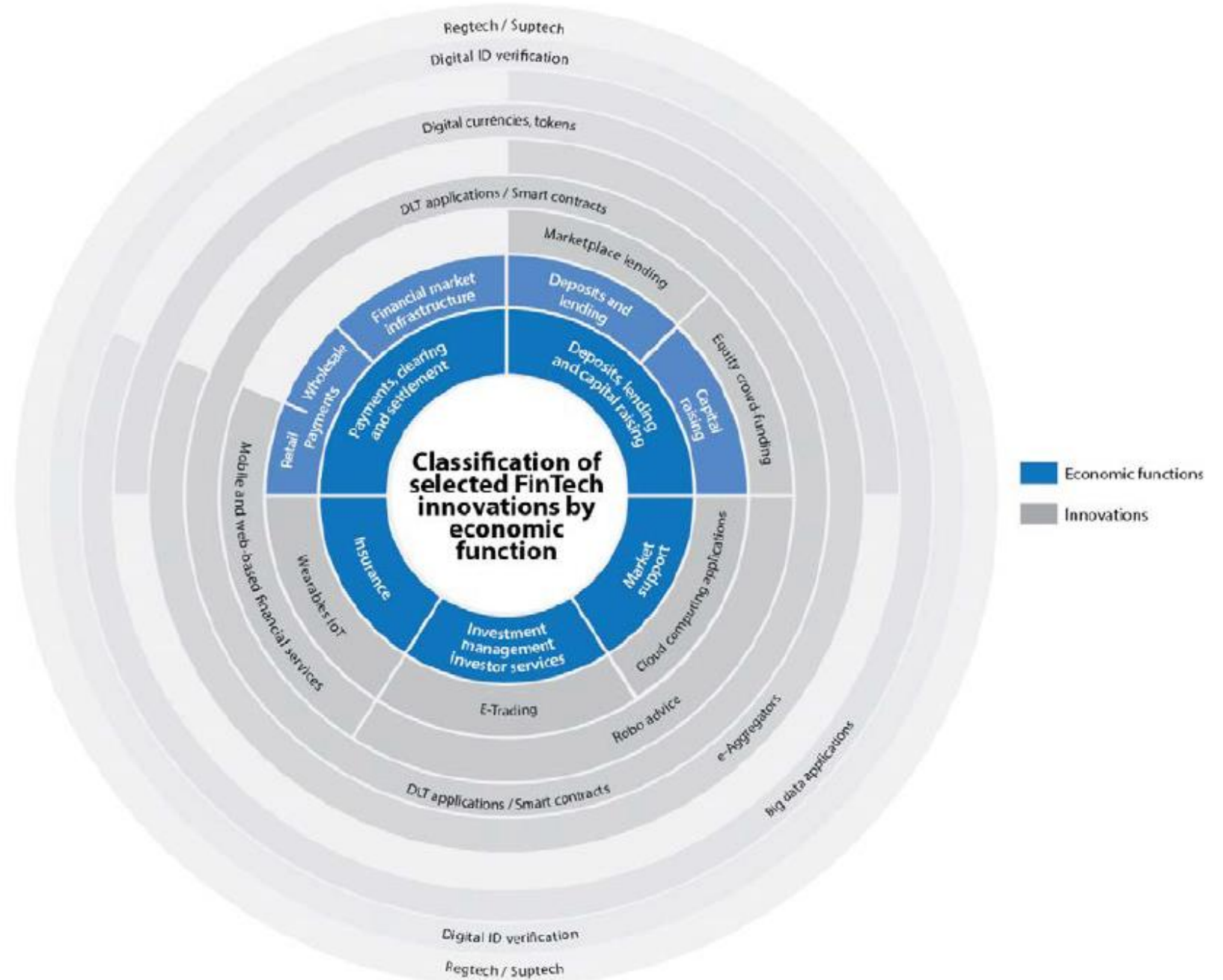


The within-country regulatory jurisdiction can also be unclear.

# Regulations in Key FinTech Areas

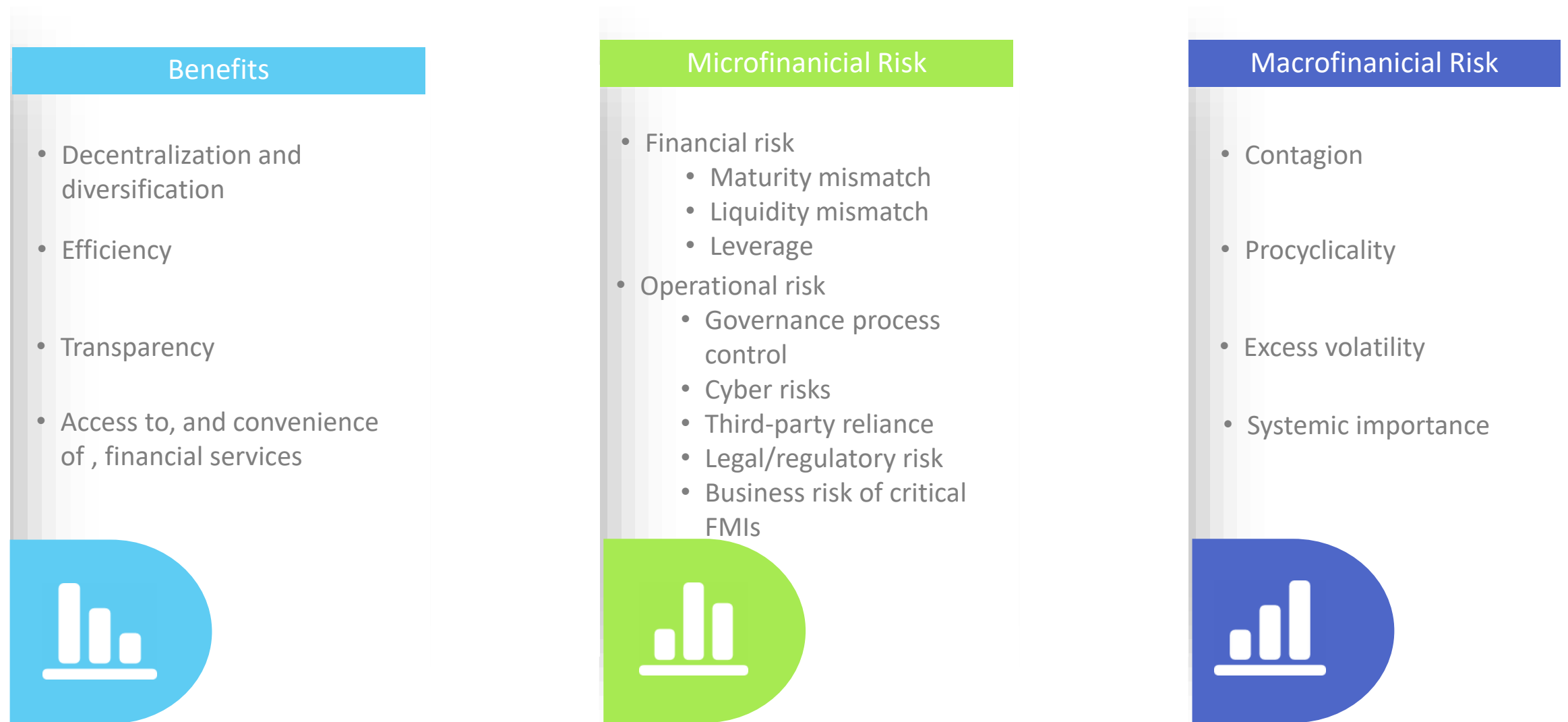


**Figure 1: Stylised classification of selected FinTech innovations by economic function**



Source: figure 1 from  
 “Financial Stability Implications from FinTech: Supervisory and Regulatory  
 Issues that Merit Authorities’ Attention, 27 June 2017, Financial Stability  
 Board, <http://www.fsb.org/wp-content/uploads/R270617.pdf>

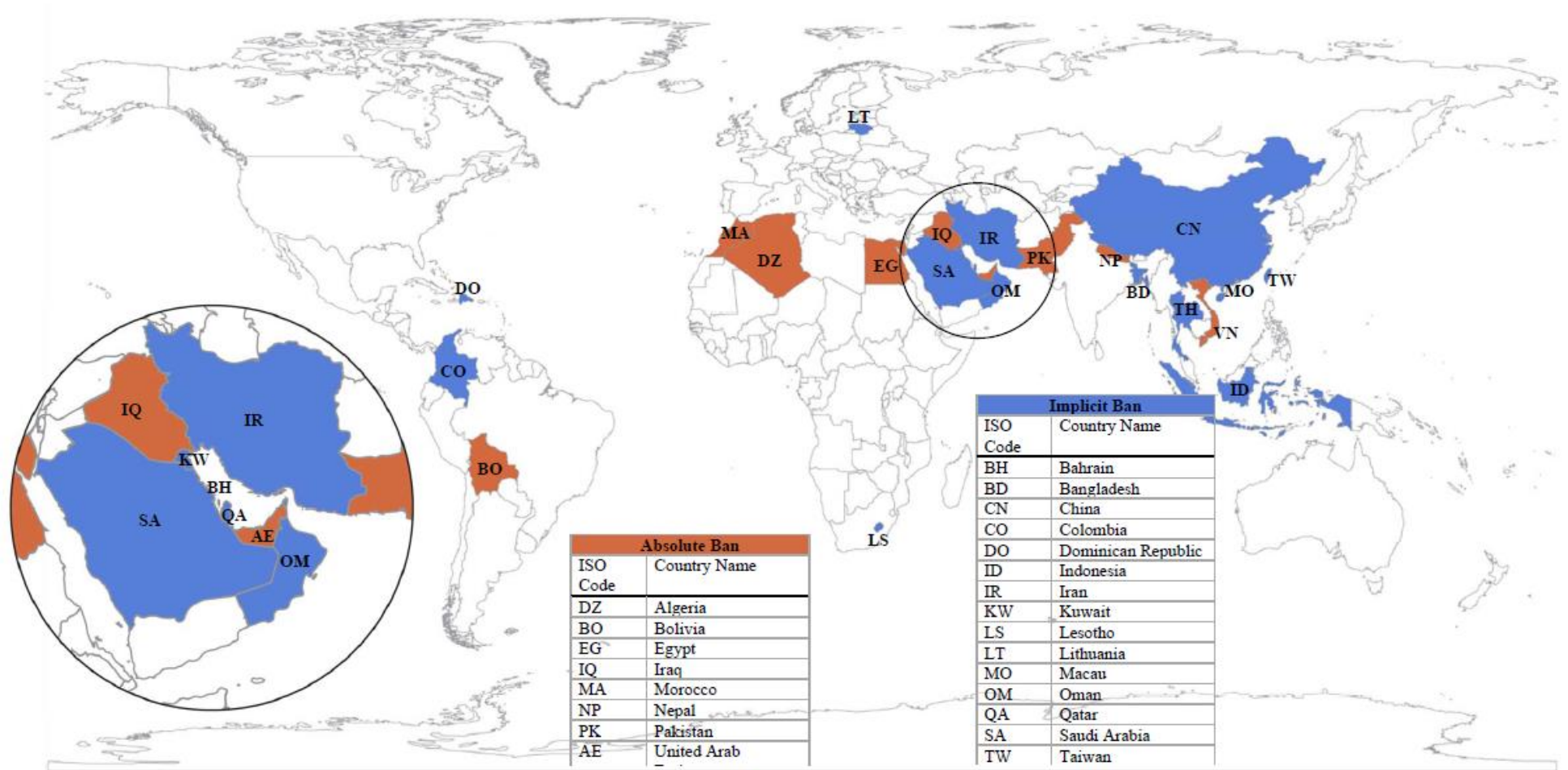
# FinTech: Benefits and Risks to Financial Stability



Source: figure 3-5 from

“Financial Stability Implications from FinTech: Supervisory and Regulatory Issues that Merit Authorities’ Attention, 27 June 2017, Financial Stability Board, <http://www.fsb.org/wp-content/uploads/R270617.pdf>

## Cryptocurrencies : FinTech Regulations

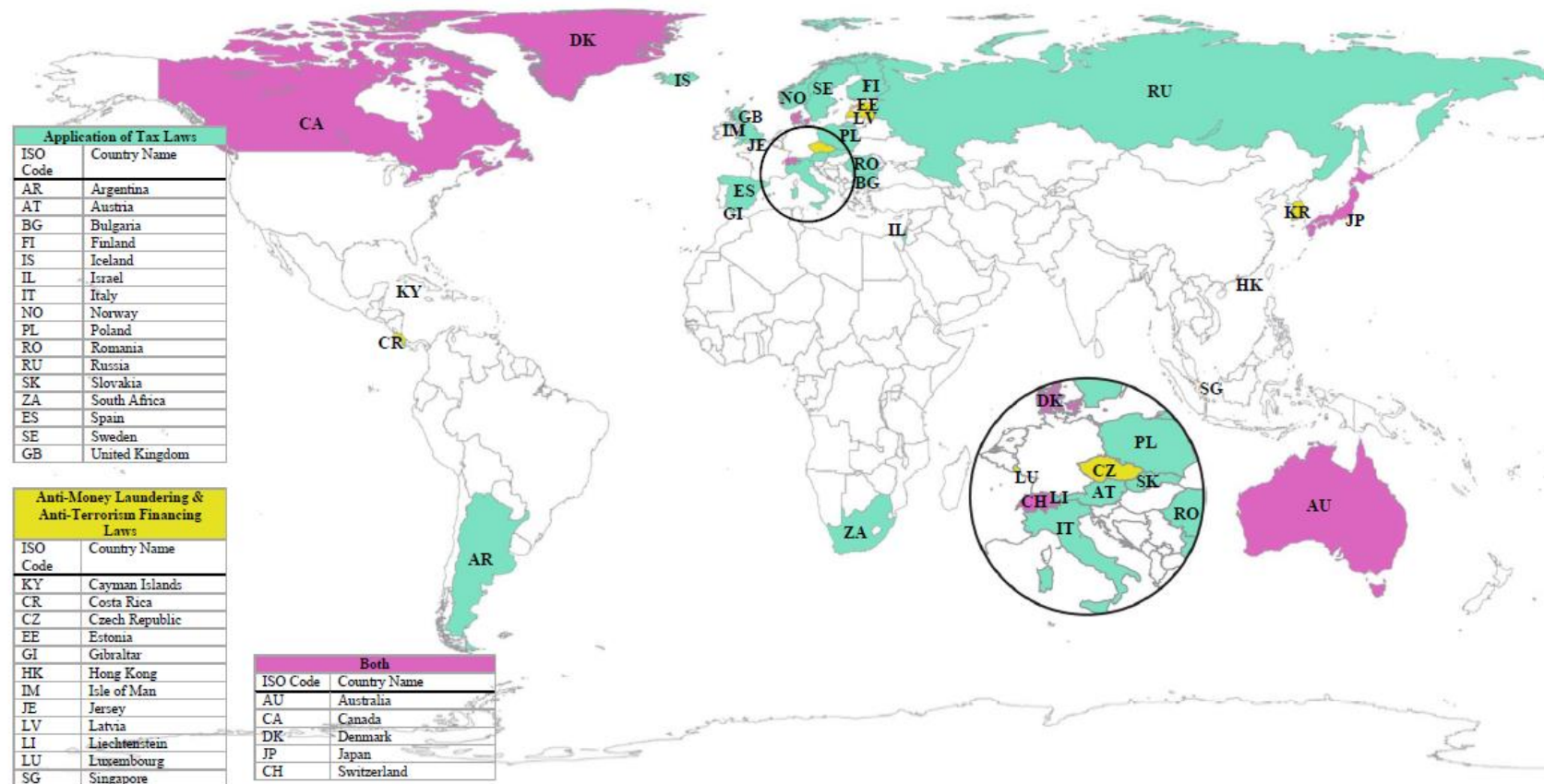


## Legal Status of Cryptocurrencies

Source: Created by the Law Library of Congress based on information provided in this report.

## Cryptocurrencies: FinTech Regulations

Regulation of Cryptocurrency Around the World

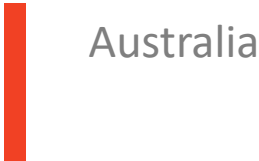


## Regulatory Framework for Cryptocurrencies: Application of Tax Laws, Anti-Money Laundering/Anti-Terrorism Financing Laws, or Both

Source: Created by the Law Library of Congress based on information provided in this report.



# Cryptocurrency Regulation



<div>1</div>	Application of Tax Law	akin to a barter arrangement, with similar tax Consequences	
	<div>2</div>	Application of Tax Law	Capital Tax GST
<div>3</div>	AML/CTF	Anti-Money Laundering and Counter-Terrorism Financing Amendment Bill 2017	
	<div>4</div>	AML/CTF	digital currency exchanges will be required to enroll in a register maintained by AUSTRAC

## P2P Regulatory Approaches Around World

1. “Exempt/ unregulated” through lack of definition

2. Specific Regulation based on existing regulatory components

- UK

2. Platforms regulated as an intermediary (market operator, broker)

- Canada,

3. Platforms regulated as a bank

- Germany, France

4. Securities issuance

- USA (SEC) and state level

5. Prohibited

- Japan, Israel)

6. MIS/CIS

- Australia



# FinTech Sandboxes

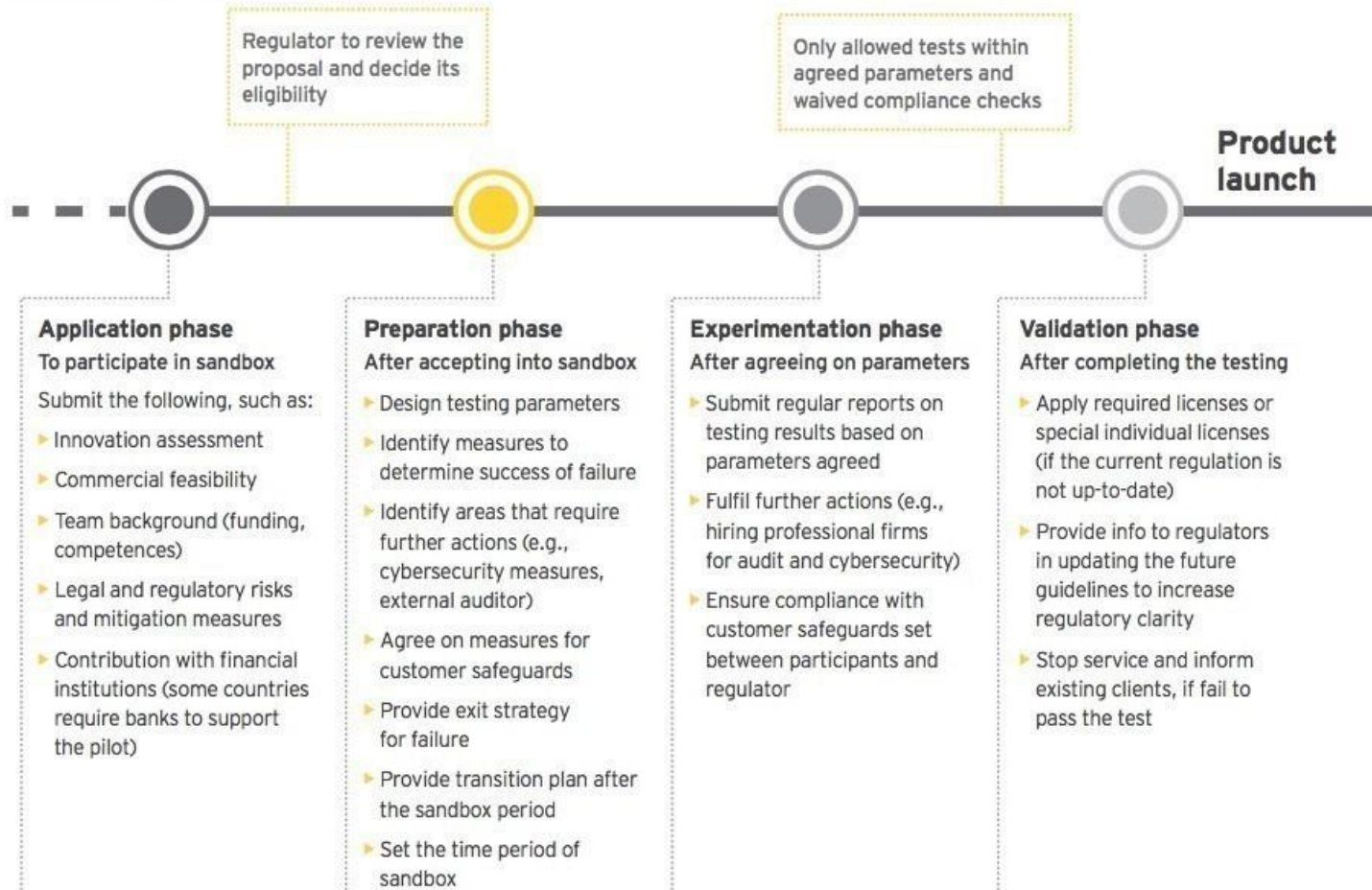
“[A regulatory sandbox is] a framework set up by a financial sector

regulator to allow small-scale, live testing of innovations by private firms in a controlled environment (operating under a special exemption, allowance, or other limited, time-bound exception) under the regulator’s supervision.”

Source: CGAP

## Inside the regulatory sandbox

Most sandboxes have a similar operation model:



Source: EY Analysis.

# FinTech Sandbox

## The use of FinTech regulatory sandboxes across Asia-Pacific

**China**

Mainland China has long been using 'pilot' programs to experiment with different new policies and regulations. Different government departments and provinces have purposed regulatory sandboxes, including a FinTech sandbox developed by Beijing Fangshan District.

**Thailand**

Major regulators including the Bank of Thailand (BOT), the Securities and Exchange Commission (SEC) and the Office of Insurance Commission (OIC) have launched their respective regulatory sandboxes.

**Progress to date:** Blockchain applications, remittance, investment advisory and KYC-related solutions have been tested. For example, some banks also completed the QR code payment applications via the BOT's sandbox.

**India**

A working group formed by major regulators has formed to investigate FinTech development and recommend a 'regulatory sandbox/innovation hub' in Feb 2018.

**Singapore**

The Monetary Authority of Singapore (MAS) has established a FinTech Regulatory Sandbox.

**Progress to date:** One online insurance distribution platform has completed the sandbox in Aug 2017. Three companies, namely an online money-changer, a cross-border money transfer provider and an online investment strategy platform are currently in the tests.

**Indonesia**

Bank Indonesia (BI) has announced plans to allow unregistered FinTech startups to participate in a six-month program to test their services. Otoritas Jasa Keuangan (OJK) also known as the Financial Services Authority also announced similar regulatory sandbox initiatives.

**Malaysia**

Bank Negara Malaysia (BNM) has set up the Financial Technology Regulatory Sandbox.

**Progress to date:** Six companies including financial product aggregation and remittance companies are currently testing the sandbox.

**South Korea**

The government established the 'Robo-advisor test bed center' which uses the sandbox approach to require banks and FinTech startups to test the fully-automated robo-advisor algorithms and platforms in the KOSCOM's testing environment prior to public launch.

**Progress to date:** Since commencing operations in Sep 2016, 29 algorithms from 18 companies have passed the test by the end of 2017.

**Taiwan**

In Dec 2017, the Legislative Yuan passed a bill to allow FinTech and financial institutions to provide legal exemptions during a "regulatory sandbox" trial period.

**Hong Kong SAR**

The Hong Kong Monetary Authority (HKMA) established the Financial Supervisory Sandbox (FSS) in Sept 2016 and allowed participation from tech firms since Sep 2017 (only licensed banks in the previous version). The Securities and Futures Commission (SFC) has also introduced its Regulatory Sandbox and Insurance Authority also set up the InsurTech Sandbox.

**Progress to date:** As of Dec 2017, 28 new technology products (e.g. biometric, remote onboarding, notification via social media) have been tested in the FSS. 14 of those have been completed.

**Australia**

Australian Securities and Investment Commission (ASIC) have announced "class waivers" allowing eligible FinTech firms to distribute basic financial products and provide simplified investment service without license for one year.

**Progress to date:** As of Dec 2017, four companies have successfully applied to the sandbox and tested their services with a shorter time to market.

APAC's regulatory sandboxes in action

# Global FinTech Hub

## Fintech Global Landscape: Asia and Americas Lead, Europe Follows



Note: The above yellow-numbered cities are the 7 Global Fintech Hubs, the blue-numbered cities are the 23 Regional Fintech Hubs, and the 25 unnumbered cities are the new leaders (Emerging Fintech Hubs)

Source: Sinai Lab from Academy of Internet Finance (AIF), Zhejiang University, and Hangzhou Moses Technology

# Approaches to Regulating FinTech

## Australia

### ASIC+Hubs

- ASIC helps FinTech companies which licenses and regulations are applicable
- Regulator Sandbox: FinTech companies test new products and services for up to 12 months without license



## USA

### OCC vs. States

- OCC: FinTech companies for special bank charters can be accepted
- No single legal framework



## China

### Loose Regulation

- Regulatory sandbox: whole China
- Some regulation has been implemented: ICOs are banned and cryptocurrency trading platforms are blocked



## UK

### FCA + Bridges

- FCA is working on a global sandbox
- Has established FinTech bridges with Canada, China, Japan, South Korea, and HongKong SAR



## Best Approaches to Regulating FinTech?

### Australia

#### ASIC+Hubs

- Collaborative regulation can help FinTech companies navigate the regulatory landscape



### USA

#### OCC vs. States

- Need consistent and clear regulatory authority



### China

#### Loose Regulation

- Spark a boom of FinTech companies but also gives rise to scams and high-risk financial models



### UK

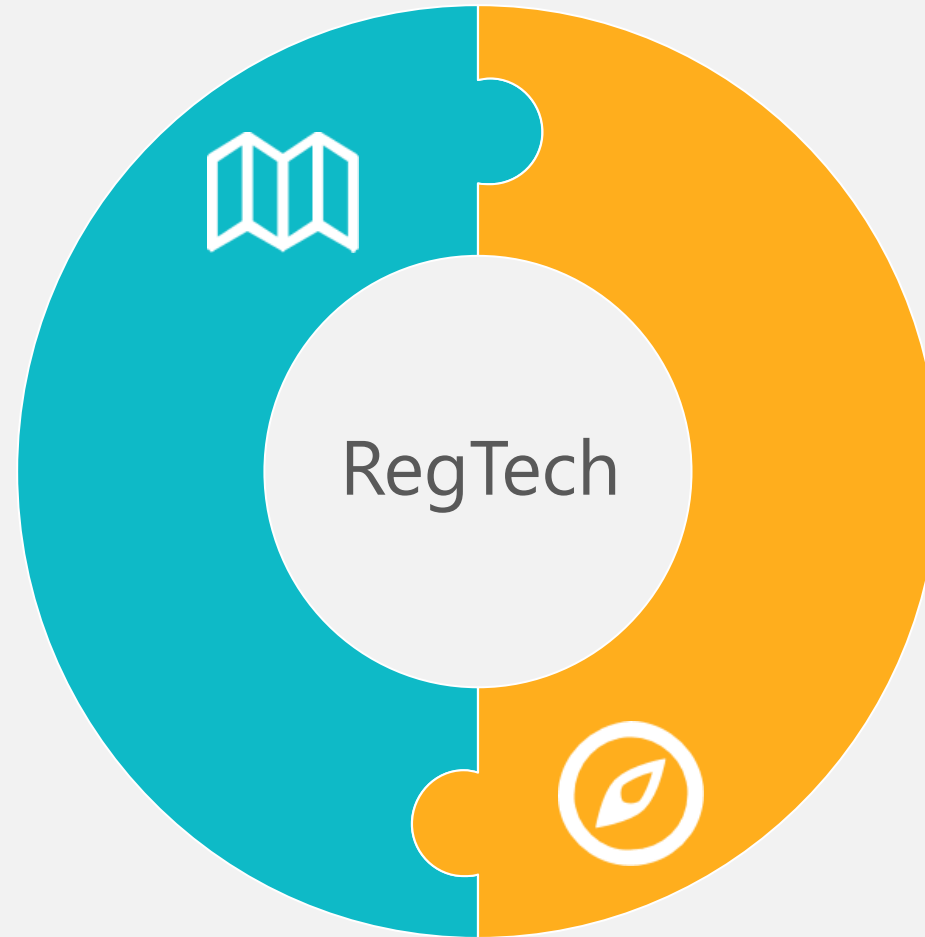
#### FCA + Bridges

- Global sandboxes with cross-boder collaborations increase value of FinTech companies



# The Best Approach RegTech?

Regulation



Technology

RegTech: adoption of new technologies to facilitate the delivery of regulatory requirements.

The Financial Conduct Authority (FCA), UK

## RegTech Applications



Provides anti-fraud and risk management services for digital transactions by tracking payment entities.



A platform helps banks submit required regulatory reports without disruption to their architecture.



Offers identity verification (people in over 40 countries) for companies including Apple and Amazon : to comply with KYC and anti-money laundering rules.

# Caution and Skepticism Around RegTech

